

# **Optimizing Medical Decisions and Care for Adult Orphans**

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## **Background**

As older adults age, their ability to make decisions may gradually decrease and supports from close family members becomes important. The American Geriatrics Society defines older patients who lack capacity to make medical decisions, have not executed an advance directive to guide medical treatment at hand, and lack family, friends, or a legally authorized surrogate to assist in the medical decision-making process as unbefriended older adults. This population is challenging for clinicians who care for and treat these vulnerable members of society. A second group, defined as adult orphans, is comprised of those who retain medical decision-making capacity but are at high risk of becoming unfriended due to lack of a completed advance health care directive and lack of a surrogate decision maker. Proactive efforts are needed to identify adult orphans and prevent them from becoming unbefriended. Unfortunately, global studies focusing on identifying this population are limited. The aging population in Taiwan is also increasing, which draws attention to the urgent need to help clinicians identify and care for adult orphans.

## **Aims**

Specific aims of this study are as follows.

1. Examine the effectiveness of the training program by assessing clinicians' knowledge, self-efficacy, and clinical practice of caring for adult orphans.
2. Write the final report summarizing the findings of this study.

## **Method**

### ***Research design***

Based on an intensive literature review, a training program for clinicians caring for older orphans has been developed. The program will then be implemented and evaluated in clinical settings. A randomized controlled clinical trial with 1- and 3-month posttests will be conducted. The program outcomes will be determined by clinicians' knowledge, self-efficacy, and clinical practice about caring for adult orphans.

### ***Setting and participants***

One medical center and one regional hospital will be selected from northern Taiwan. A list of clinical divisions (excluding obstetrics and pediatrics) will be obtained from each participating hospital. Based on hospital size, four to six divisions will be randomly selected from each hospital. The selected divisions will then be randomly assigned to the experimental or control group in a 1:1 ratio.

### **Inclusion criteria:**

- Full-time healthcare professionals working in the selected outpatient or inpatient divisions.
- Includes physicians, nurses, social workers, and psychologists.
- Willing and able to provide informed consent for participation.

**Exclusion Criteria:**

- There are no specific exclusion criteria. All healthcare professionals meeting the inclusion criteria are eligible.

Sample size will be estimated using G\*power software (version 3.1) for repeated measures between two groups (between factors), significance level at 0.05, a small-to-moderate effect size ( $f=0.25$ ), and power of 80%. A sample of 43 per group will be required. We estimate that at least 100 clinicians will be recruited to participate in this study.

**Measures**

Data will be collected by a self-report questionnaire that includes scales for measuring clinicians' knowledge, self-efficacy, and clinical practice, as well as a demographic form. All measures have been developed by the research team.

1. Clinicians' Knowledge about Caring for Adult Orphans

Knowledge regarding the care of adult orphans measured using the Clinicians' Knowledge about Caring for Adult Orphans Scale, a 17-item questionnaire developed by the research team. Each correct response is scored as 1 point and incorrect or "do not know" responses are scored as 0 points. Total scores range from 0 to 17, with higher scores indicating greater knowledge.

Unit of Measure: Score on knowledge scale (0–17)

[Time Frame: Baseline, 1 month, and 3 months after the intervention]

2. Clinicians' Self-Efficacy about Caring for Adult Orphans

Self-efficacy in caring for adult orphans measured using the Clinicians' Self-Efficacy about Caring for Adult Orphans Scale, a 10-item questionnaire rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Total scores range from 10 to 50, with higher scores indicating greater self-efficacy.

Unit of Measure: Score on self-efficacy scale (10–50)

[Time Frame: Baseline, 1 month, and 3 months after the intervention]

3. Clinicians' Clinical Practice about Caring for Adult Orphans

Clinical practice in caring for adult orphans measured using the Clinicians' Clinical Practice about Caring for Adult Orphans Scale, a 10-item questionnaire rated on a 5-point Likert scale (1 = strongly disagree to 5 = strongly agree). Total scores range from 10 to 50, with higher scores indicating better clinical practice.

Unit of Measure: Score on clinical practice scale (10–50)

[Time Frame: Baseline, 1 month, and 3 months after the intervention]

### ***Intervention program***

The Caring for Adult Orphans training program has been developed to improve clinicians' knowledge, self-efficacy, and clinical practice in caring for adult orphans. The program consists of three components: A film highlighting issues related to adult orphans and unbefriended older adults. A second film introducing the Hospice Palliative Care Act and the Patient Right to Autonomy Act to enhance participants' understanding of relevant legal and ethical frameworks. Three common clinical scenarios involving the care of adult orphans, used for group discussion and structured debriefing.

The training program will be implemented by an experienced, well-trained RA. The RA will receive at least three training sessions. In the first session, the PI will explain the purpose, design, and procedures of the training program. In the second session, the RA will be familiarized with the training program by rehearsal practice. In the third session, the RA will practice in the field and discuss related questions. The quality of the training program will be ensured by frequent (every 2 weeks for the first 3 months and every month thereafter) meetings of the whole team to discuss related issues. The content validity index of this program will be examined by a panel of 10 experts in geriatric care: four physicians with expertise in treating older adults; four clinical nurses, one clinical psychologist and one social worker with extensive experience caring for older adults.

### ***Data collection***

Each selected hospital will be approached individually. After the hospitals' IRBs approve the study, we will obtain division lists, delete divisions that do not treat older adults, and randomly select four to six divisions based on the size of the hospitals. One RA will approach physicians, nurses, social workers, and psychologists who work in selected divisions and explain the study by attending their team meetings. All clinicians who wish to participate will be asked to sign a consent form and complete the pretest (baseline) questionnaire (knowledge, self-efficacy, clinical practice, and demographic data). Participants will be assigned to the experimental or control group based on group assignment. Clinicians in the experimental group will then receive the training program. The control group will not receive any training. All clinicians will be asked to complete the same questionnaire (except demographic data) at 1-month and 3-month (posttests).

To avoid contamination, the training program will be administered only by one RA, and participant recruitment and all data will be collected by another RA who will be blinded to the clinicians' group assignment. The questionnaire will be completed anonymously, but participants will be asked to leave the final four digits of their mobile phone number at the end of the questionnaire to allow data to be matched from

the three collection times. No information will be compiled about participation or nonparticipation in the study. Therefore, clinicians will face no job risk related to their participation.

The data-collector RA will be trained in two sessions. In the first session, the PI will explain the study purpose, design, and instruments as well as demonstrate how to conduct an interview. In the second session, the RA will practice actual data collection under the PI's supervision.

### ***Data analysis***

Data will be analyzed using SPSS for Windows, version 27.0. Group characteristics will be analyzed by descriptive statistics, and group differences will be identified by t-tests and chi-square for continuous and categorical variables, respectively. Differences in group outcomes were analyzed using repeated-measures analysis of variance (ANOVA)/analysis of covariance (ANCOVA).